. I.	CRF Fors Corrected by the STIC System is Branch CRF Processing Date: Still by the STIC System is Branch CRF Processing Date: Still by the STIC System is Branch
	Changed a file from non-ASCII to ASCII Changed a file from non-ASCII to ASCII
	Changed the margins in cases where the sequence text was "wrapped" down to the next line.
	Edited a format error in the Current Application Data section, specifically:
	Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other
,	Added the mandatory heading and subheadings for "Current Application Data".
١	Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integ
(Changed the spelling of a mandatory field (the headings or subheadings), specifically:
(Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
i	Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
(Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
	Inserted colons after headings/subheadings. Headings edited included:
_	Deleted extra, invalid, headings used by an applicant, specifically:
	Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end page numbers throughout text; other invalid text, such as
	Inserted mandatory headings, specifically:
	Corrected an obvious error in the response, specifically:
-	Edited identifiers where upper case is used but lower case is required, or vice versa.
	Corrected an error in the Number of Sequences field, specifically:
_	A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
	Deleted <i>ending</i> stop codon in amino acid sequences and adjusted the *(A)Length:* field accordingly (edue to a Patentin bug). Sequences corrected:

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

RAW SEQUENCE LISTING

PATENT APPLICATION US/09/004,395B

DATE: 06/23/1999

TIME: 11:48:55

Input Set: I004395B.RAW

This Raw Listing contains the General Information Section and up to first 5 pages.

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           Johnson, Barbara JB
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 3
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 6
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     <160> NUMBER OF SEQ ID NOS: 6
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 8
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12
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                                                                                  120
26
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                                                                                  180
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                                                                                  420
31
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                                                                                  475
32
                                                                      Met
3.3
34
          aaa agg aaa gct aaa agt att tta ttt ttt tta tcc act gtt ctt
                                                                                  523
35
          Lys Arg Lys Ala Lys Ser Ile Leu Phe Phe Leu Leu Ser Thr Val Leu
36
              -20
                                   -15
37
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                                                                                  571
           Phe Ala Gln Glu Thr Asp Gly Leu Ala Glu Gly Ser Lys Arg Ala Glu
38
```

the state of the s 44 Ser Thr Arg Leu Asp Leu Thr Ash Tyr Val Asp Tyr Val Tyr Ser Gly

PAGE: 2 RAW SEQUENCE LISTING DATE: 06/23/1999

PATENT APPLICATION US/09/004,395B TIME: 11:48:55

Input Set: I004395B.RAW

1.5			2.0					2 5					1.0				
45	~~+	+ a+	30	~ + +	~++		~~~	35	~~+	~ - ~	~++	~+ ~	40	a++	~~~		715
46	_						ccg										715
47	Ala		GIY	TTE	val	гуу	Pro 50	Giu	Asp	мес	Val	55	Asp	пеп	GIY	шe	
48	~~+	45	+~~	200	~++	++-		- a+	aa+	t a t	~~~		++~	~~~	~~+	+	7.63
49				_	-		ctt				_		_	_	_		763
50		ASII	пр	sei	Val		Leu	1111	PIO	ser		Arg	ьeu	GIII	Ala	-	
51	60			.		65					70					75	011
52	_						gcg			-			-				811
53	Val	Lys	ASII	Ser		Val	Ala	Pro	Ala		vai	ьуs	ser	GIU		ьуѕ	
54				~	80					85					90		٥٣٥
55			-		_		att	_		_	_	_	_			_	859
56	arg	Tyr	Ala	_	Asp	Thr	Ile	Leu	_	val	Arg	vai	Leu		Pro	ser	
57				95					100					105			0.07
58							atg										907
59	туг	ser		ser	ser	Ala	Met		Met	PIO	PIO	Phe	_	тте	Pro	Pne	
60			110	~~~		~~~		115					120				٥٦٦
61				-	_		aat									_	955
62	Tyr		GIY	GIU	ser	GIY	Asn	GIII	Pne	Leu	GIY	_	GIY	Leu	ire	Asp	
63		125					130					135					1002
64							gaa										1003
65		TTe	гÀг	Inr	мес	-	Glu	TTE	гÀг	Val		val	Tyr	ser	ьeu	-	
66	140					145					150					155	1051
67				_			gtt			_	_	_			_	_	1051
68 69	туг	GIU	116	АБР	160	GIU	Val	Leu	Pne	165	Asp	Met	ASII	GIY	170	GIU	
70	+ > +	aat	+ > +	tat		aat	act	++-	224		222	~~~	+ ~~	aat		++>	1099
71							act Thr							-	_		1099
72	тут	на	ıyı	175	MEC	Gry	1111	пеп	180	FIIC	цуз	Gly	тър	185	Азр	цец	
73	a + +	taa	+ 00		aat	226	tat	a + +		22+	2+2	tas	taa		2++	2++	1147
74							Tyr							_			1147
7 5	116	тър	190	ASII	FIO	ASII	1 7 1	195	FIO	ASII	116	Ser	200	Arg	116	116	
76	222	a a c		att	CC2	2 2 t	tat		ctt	act	tca	aat		ato	2072	+++	1195
77		_	_	-			Tyr			_		_		_	_		1193
78	БуБ	205	Азр	val	110	ASII	210	110	пси	AIG	DCI	215	цуз	Mec	Arg	FIIC	
79	2 2 (1		+++	arra	att	tca	aag	tra	cac	ant	tca		att	222	aat	ttc	1243
80	_	-		-	-		Lys			_			-				1243
81	220	Ala	rnc	Arg	vai	225	БУЗ	DCI	1113	261	230	шуз	vai	шуз	ASII	235	
82		+++	tat	att	222		tta	2012	att	att		rat	220	ct a	ant		1291
83				_		_	Leu	_	_			_	_		_	_	1271
84	110	1110	- y -	val	240	Acr	neu	nr 9	Val	245	- Y -	725	دړد	пси	250	vaı	
85	tca	ata	aat	tct		att	gac	ant	nan		ata	+++	aaa	att		mam	1339
86							Asp										1333
87	JGI	110	voh	255	Tob	116	Tob	JUL	260	561	val	1 11G	பரக	265	1 Y 1	JIU	
88	act	add	aas		ra a	tcc	ctt	cat		tta	aan	aca	cac		act	+++	1387
33	(4 ((aye	gga	ucc	yua			cyc	aaa	cca	aug	gca	cac	yaa	acc		1307

23 LB5 L90 L90 1483

94 ttc caa aac ttt gta gaa aag att gag agt gaa aaa cct gaa gaa tca 1483

PAGE: RAW SEQUENCE LISTING DATE: 06/23/1999 TIME: 11:48:55

PATENT APPLICATION US/09/004,395B

Input Set: I004395B.RAW

Phe Gln Asn Phe Val Glu Lys Ile Glu Ser Glu Lys Pro Glu Glu Ser tot cog aaa aat tag gtttaaatta atatgtaaag ctacctaaaa ggtttgcttt ₩-->√/ 98 Ser Pro Lys Asn w-->₩ 99 acatattaaa ataataggaa atagtatatg gaaatattag atttggaaaa tgaagagctt ttaggagttt tttttgaaga agctcaaaat cttgtagata tccttgaaga gaatatt <210> SEQ ID NO 2 <211> LENGTH: 341 <212> TYPE: PRT <213> ORGANISM: B.burgdorferi <400> SEQUENCE: 2 Mot Lys Arg Lys Ala Lys Ser Ile Leu Phe Phe Leu Leu Ser Thr Val -20 -15 Leu Phe Ala Gln Glu Thr Asp Gly Leu Ala Glu Gly Ser Lys Arg Ala Glu Pro Gly Glu Leu Val Leu Asp Phe Ala Glu Leu Ala Arg Asp Pro Ser Ser Thr Arg Leu Asp Leu Thr Asn Tyr Val Asp Tyr Val Tyr Ser Gly Ala Ser Gly Ile Val Lys Pro Glu Asp Met Val Val Asp Leu Gly Ile Asn Asn Trp Ser Val Leu Leu Thr Pro Ser Ala Arg Leu Gln Ala Tyr Val Lys Asn Ser Val Val Ala Pro Ala Val Lys Ser Glu Ser Lys Arg Tyr Ala Gly Asp Thr Ile Leu Gly Val Arg Val Leu Phe Pro Ser Tyr Ser Gln Ser Ser Ala Met Ile Met Pro Pro Phe Lys Ile Pro Phe Tyr Ser Gly Glu Ser Gly Asn Gln Phe Leu Gly Lys Gly Leu Ile Asp Asn Ile Lys Thr Met Lys Glu Ile Lys Val Ser Val Tyr Ser Leu Gly Tyr Glu Ile Asp Leu Glu Val Leu Phe Glu Asp Met Asn Gly Met Glu Tyr Ala Tyr Ser Met Gly Thr Leu Lys Phe Lys Gly Trp Ala Asp Leu Ile Trp Ser Asn Pro Asn Tyr Ile Pro Asn Ile Ser Ser Arg Ile Ile Lys Asp Asp Val Pro Asn Tyr Pro Leu Ala Ser Ser Lys Met Arq Phe Lys Ala Phe Arg Val Ser Lys Ser His Ser Ser Lys Val Lys Asn

Flu Thr Ser Bly Thr Flu Ser Leu Arg Lys Leu Lys Ala His Flu Thr 270 275

. 1.

DATE: 06/23/1999 TIME: 11:48:55 PAGE: 4 RAW SEQUENCE LISTING

PATENT APPLICATION US/09/004,395B

Input Set: I004395B.RAW

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146		285 290 295	
147		Ser Phe Gln Asn Phe Val Glu Lys Ile Glu Ser Glu Lys Pro Glu Glu	
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149		Ser Ser Pro Lys Asn	
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VERIFICATION SUMMARY DATE: 06/23/1999
PATENT APPLICATION US/09/004,395B TIME: 11:48:55 VERIFICATION SUMMARY

Input Set: I004395B.RAW

Line ? Error/Warning Original Text 98 W Line data has been corrected Ser Pro Lys Asn * 99 W Invalid/Missing Amino Acid Numbering 320

CORRECTION SUMMARY DATE: 06/23/1999
PATENT APPLICATION US/09/004,395B TIME: 11:48:55

Input Set: I004395B.RAW

Line Original Text

Corrected Data

98 Ser Pro Lys Asn *

Ser Pro Lys Asn

1645

PAGE: 1

RAW SEQUENCE LISTING

DATE: 06/23/1999

PATENT APPLICATION US/09/004,395B TIME: 11:48:55

Input Set: I004395B.RAW

PREVIOUSLY ERRORED SEQUENCES-EDITED

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2 <211> 21

<212> DNA

4 <213> B.burgdorferi

5 <400> 6

6 ctaatttttc ggagatgatt c 21

RAW SEQUENCE LISTING

PATENT APPLICATION US/09/004,395B

DATE: 06/19/1999

TIME: 16:32:24

Input Set: I004395B.RAW

This Raw Listing contains the General Information Section and those Sequences containing ERRORS.

Does Not Compa, Correcto / Diskette New Jour

1 <110> Gilmore Jr., Robert D

Johnson, Barbara JB

3 <120 > RECOMBINANT P37/FlaA AS A DIAGNOSTIC REAGENT

4 <130> 97,429

5 <140> US/09/004,395B

6 <141> 1998-01-08

7 <160> 6

8 <170> Microsoft Word 97

ERRORED SEQUENCES FOLLOW

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10 <211> 21

11 <212> DNA

12 <213 > B.burgdorferi

13 <400> 6

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E--> 15

21

PAGE: • 2 •

VERIFICATION SUMMARY PATENT APPLICATION US/09/004,395B TIME: 16:32:24

DATE: 06/19/1999

Input Set: I004395B.RAW

Line ? Error/Warning Original Text

15 E Number of Bases conflict w/ Running Total 1